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157	7590	02/05/2004	EXAMINER	
BAYER POLYMERS LLC 100 BAYER ROAD PITTSBURGH, PA 15205			GOFF II, JOHN L	
			ART UNIT	PAPER NUMBER
			1733	
DATE MAILED: 02/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/068,123

Applicant(s)

ROBBINS ET AL.

Examiner

John L. Goff

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-- **Th MAILING DATE of this communication appears on the cover sheet with the correspond nce address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 11, 13 and 16-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-29, drawn to a process for the preparation of a patterned polyurethane backed tufted good, classified in class 156, subclass 72.
  - II. Claims 30 and 21, drawn to a polyurethane backed tufted good, classified in class 428, subclass 95.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as a discontinuous process wherein the polyurethane is patterned and cured in a mold or a continuous process wherein the polyurethane is patterned using an embossing roll and then cured.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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5. This application contains claims directed to the following patentably distinct species of the claimed invention:

**If Group I is elected the following Species and Sub-Species elections are required:**

**Species I** (described in the specification beginning on page 9, line 26 and appears to read on claims 1-15): directed to forming a pattern in the polyurethane using a doctoring device.

**If Species I is elected the following Sub-Species election is required:**

**Sub-Species I-A** (appears to read on claims 3-10): directed to an inorganic thickener.

**Sub-Species I-B** (appears to read on claims 11 and 12): directed to an organic thickener.

**Species II** (described in the specification beginning on page 11, line 5 and appears to read on claims 16-29): directed to forming a pattern in the polyurethane by pressing a secondary backing having a pattern into the polyurethane.

**If Species II is elected the following Sub-Species election is required:**

**Sub-Species II-A** (appears to read on claims 18-25): directed to an inorganic thickener.

**Sub-Species II-B** (appears to read on claims 26 and 27): directed to an organic thickener.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species and sub-species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there are no generic claims.

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**If Group II is elected the following Species election is required:**

**Species I** (described in the specification beginning on page 9, line 26 and appears to read on claim 30): directed to forming a pattern in the polyurethane using a doctoring device.

**Species II** (described in the specification beginning on page 11, line 5 and appears to read on claim 31): directed to forming a pattern in the polyurethane by pressing a secondary backing having a pattern into the polyurethane.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, there are no generic claims.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. During a telephone conversation with N. Denise Brown on 1/26/03 a provisional election was made with traverse to prosecute the invention of Group I, Species I, Sub-Species I-A, claims 1-10 and 13-15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11, 12, and 16-31 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Information Disclosure Statement***

8. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bogdany (U.S. Patent 4,423,103).

Bogdany disclose a process for producing a patterned polyurethane backed tufted carpet. Bogdany teaches providing a carpet, applying a polyurethane mixture to the back side of the carpet, passing the coated carpet under a first doctor blade to spread the polyurethane mixture evenly across the surface of the carpet, passing the coated carpet under a second doctor blade that is patterned to form a pattern in the polyurethane mixture, and passing the coated carpet through an oven to cure the polyurethane mixture (Figures 1 and 4 and Column 1, lines 32-47, 51-53, and 60-68 and Column 2, lines 1-11 and 58-61). Bogdany teaches the polyurethane mixture comprises polyisocyanate, polyol, clay (or calcium carbonate, silica, etc. i.e. non-Newtonian thickeners), and filler (e.g. antidegradants, etc.) (Column 3, line 41 and Column 4, line 4 and Column 5, lines 8-11).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stidham (U.S. Patent 4,354,810) in view of Holeschovsky et al. (WO 00/37737).

Stidham discloses a process for producing a patterned polyurethane backed tufted carpet. Stidham teaches providing a tufted carpet, applying a polyurethane mixture to the back side of the tufted carpet, passing the coated tufted carpet under a doctor roller having a pattern or a doctor blade having removable patterned blades to form a pattern in the polyurethane mixture, and passing the coated tufted carpet through an oven to cure the polyurethane mixture (Figures 1-8 and Column 1, lines 16-28, 41-48, and 66-68 and Column 2, lines 1-2 and Column 3, lines 10-22 and 58-68 and Column 4, lines 1-2, 15-26, 34-38, and 53-57 and Column 5, lines 11-17, 44-47, and 64-67 and Column 6, lines 3-4, 28-30, and 33-35).

Regarding claims 3-10 and 13, Stidham while teaching that the tufted carpet is backed with a polyurethane mixture is silent as to (and is not limited to) any particular polyurethane composition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the polyurethane mixture taught by Stidham any of the well known



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and conventional polyurethane mixtures in the tufted carpet backing art such as the polyurethane mixture shown for example by Holeschovsky et al. as only the expected results would be achieved.

Regarding claims 14 and 15, Stidham is silent as to (and is not limited to) applying the patterned polyurethane backing to any particular tufted carpet structure, e.g. a carpet having a precoat or a carpet having a woven secondary backing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the tufted carpet taught by Stidham any well known and conventional tufted carpet in the art such as the tufted carpet structures shown for example by Holeschovsky et al. as only the expected results would be achieved.

Holeschovsky et al. disclose a polyurethane backed tufted carpet. Holeschovsky et al. teach the polyurethane backing mixture comprises at least one polyisocyanate component, at least one isocyanate-reactive component, at least one non-Newtonian thickener, and at least one filler (Page 10, lines 1-5, 13-14, and 18-19 and Page 11, lines 23-24). Holeschovsky et al. teach the non-Newtonian thickener may be inorganic having a specific surface area of  $10 \text{ m}^2/\text{g}$  or greater (Page 12, lines 4-7). Holeschovsky et al. teach the inorganic thickener is present in an amount of from 0.25 to 20 parts per 100 parts of isocyanate-reactive ingredients (Page 12, lines 16-18). Holeschovsky et al. teach the inorganic non-Newtonian thickener is selected from precipitated calcium carbonate, clay minerals, fumed silica, etc. (Page 12, lines 8-13). Holeschovsky et al. teach the inorganic non-Newtonian thickener has a mean particle size less than 0.3 microns (Page 12, lines 27-30 and Page 13, lines 1-5). Holeschovsky et al. teach the inorganic non-Newtonian thickener form aggregates and/or agglomerates (Page 12, lines 25-26).

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Holeschovsky et al. teach the viscosity of the polyurethane mixture at a first high rate of shear is within 20% of the viscosity of a reactive polyurethane of the same formulation but devoid of non-Newtonian thickener, and is at least three times the viscosity of the non-Newtonian thickener-devoid composition at a second, lower rate of shear (Table 1 and Page 20, lines 24-26 and claim 11). Holeschovsky et al. teach a process for applying the polyurethane mixture to the tufted carpet comprising providing a tufted carpet (the carpet may have a cured or uncured latex or polyurethane precoat), applying the polyurethane mixture to the back side of the tufted carpet, passing the coated tufted carpet under a doctor blade to spread the polyurethane mixture across the surface of the carpet, optionally applying a woven secondary backing to the coated tufted carpet, and passing the coated tufted carpet through an oven to cure the polyurethane mixture (Figures 1-3 and Page 1, lines 7-11 and Page 5, lines 19-32 and Page 6, lines 1-11 and Page 7, lines 12-15 and Page 19, lines 17-23 and Page 26, lines 7-10 and claim 25).

Regarding claims 6 and 7, while Holeschovsky et al. do not specifically disclose amounts of fumed silica or precipitated calcium carbonate as described in the claims, it is noted the polyurethane mixture described by Holeschovsky et al. is the same as that described and claimed by applicant such that one of ordinary skill in the art at the time the invention was made would have readily expected the polyurethane mixture taught by Holeschovsky et al. to have the amounts of fumed silica or precipitated calcium carbonate required by claims 6 and 7.

14. Claims 1-10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holeschovsky et al. in view of any one of Stidham, Satiar (GB 2160790), Davis et al. (U.S. Patent 5,045,375), or Bogdany.

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Holeschovsky et al. is described above in paragraph 13. Holeschovsky et al. is silent as to using the doctor blade to form a pattern in the polyurethane mixture. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the polyurethane backed tufted carpet taught by Holeschovsky et al. with a pattern using a patterned doctor blade as it was well known in the art to form polyurethane backed carpets with a pattern (from a patterned doctor blade) to give the carpet non-slip/skid properties as shown for example by any one of Stidham (Stidham is described above in paragraph 13), Satiar, Davis et al. or Bogdany (Bogdany is described above in paragraph 10).

Satiar and Davis et al. disclose a method of forming adhesive (e.g. polyurethane or latex) backed tufted carpets wherein the adhesive is patterned (e.g. by using a patterned doctor blade) to give the tufted carpets non-slip/skid properties (Page 1, lines 4-9, 22-31, 45-51, 57-59, and 80-81 of Satiar and Column 1, lines 9-11 and Column 2, lines 57-61 and Column 3, lines 4-6, 9-17, and 20-23 and Column 4, lines 21-26 and Column 5, lines 9-12 of Davis et al.).

Regarding claims 6 and 7, while Holeschovsky et al. do not specifically disclose amounts of fumed silica or precipitated calcium carbonate as described in the claims, it is noted the polyurethane mixture described by Holeschovsky et al. is the same as that described and claimed by applicant such that one of ordinary skill in the art at the time the invention was made would have readily expected the polyurethane mixture taught by Holeschovsky et al. to have the amounts of fumed silica or precipitated calcium carbonate required by claims 6 and 7.

15. Claims 3-10 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bogdany as applied in paragraph 10 above, and further in view of Holeschovsky et al.

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Regarding claims 3-10 and 13, Bogdany as applied above teaches all of the limitations in claims 3-10 and 13, except for the particulars of the polyurethane mixture. However, it is noted Bogdany teach that the tufted carpet is backed with a polyurethane mixture comprising inorganic non-Newtonian thickeners, and Bogdany is not limited to any particular polyurethane composition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the polyurethane mixture having non-Newtonian thickeners taught by Bogdany any of the well known and conventional polyurethane mixtures having non-Newtonian thickeners in the tufted carpet backing art such as the one shown for example by Holeschovsky et al. (Holeschovsky et al. is described above in paragraph 13) as only the expected results would be achieved.

Regarding claims 14 and 15, Bogdany as applied above teaches all of the limitations in claims 14 and 15 except for applying the patterned polyurethane backing to any particular tufted carpet structure, e.g. a carpet having a precoat or a carpet having a woven secondary backing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the tufted carpet taught by Bogdany any well known and conventional tufted carpet structures in the art such as the tufted carpet structures shown for example by Holeschovsky et al. (Holeschovsky et al. is described above in paragraph 13) as only the expected results would be achieved.

Regarding claims 6 and 7, while Holeschovsky et al. do not specifically disclose amounts of fumed silica or precipitated calcium carbonate as described in the claims, it is noted the polyurethane mixture described by Holeschovsky et al. is the same as that described and claimed by applicant such that one of ordinary skill in the art at the time the invention was made would

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have readily expected the polyurethane mixture taught by Holeschovsky et al. to have the amounts of fumed silica or precipitated calcium carbonate required by claims 6 and 7.


***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



John L. Goff  
January 29, 2004



JEFF H. AFTERGUT  
PRIMARY EXAMINER  
GROUP 1300